

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1-7, 9, 11-16, 18, 19, and 22-32 are pending. The specification and Claims 1, 3, 11, 12, 14-16 are amended. Claims 8, 10, 20, and 21 were rejected previously. Claim 17 is canceled by the present amendment. Claims 26-32 are newly added. Support for the amendment to the specification is self-evident inasmuch as the acronym "DSC" is understood in the art to mean "differential scanning calorimetry." Support for the amendments to Claims 1, 3, 11, and 14 can be found in the published application in numbered paragraphs [0016] and [0025] and in now-canceled dependent Claim 17, for example. Support for the amendments to Claims 12, 15, and 16 is self-evident. Support for newly added Claim 26 can be found in numbered paragraph [0057] of the published application, for example. No new matter is added.

In the outstanding Office Action, Claims 1-7, 9, and 11-19 were rejected under 35 U.S.C. § 103(a) as obvious over Garrett (U.S. Patent No. 3,682,181, herein "Garrett") in view of Zeoli-Jones (U.S. Patent No. 5,480,418, herein "Zeoli-Jones").

Regarding the rejection of Claim 1 as obvious over Garrett in view of Zeoli-Jones, that rejection is respectfully traversed by the present response.

Amended independent Claim 1 recites

a margin disposed around said heating part, said margin being free of the heat generating material and configured to wrap hair adjacent to said heating part and to be held in place to maintain a wrapped state by a fastener connected to said margin,

wherein the hair warming tool includes first and second sides, each of the first and second sides having a surface area of from 100 to 1200 cm<sup>2</sup>, and the hair warming tool further includes an outermost base sheet adapted to contact said tied hair when in the wrapping state, said outermost base sheet comprising a water resistant material, said outermost base sheet being non-removably attached to said hair warming tool and

the margin includes a seal at an outer perimeter of the margin, and the margin further includes a portion between the seal and the heating part, the portion including a first sheet separated from the outermost base sheet by an air gap,

wherein a total area of the heating part, as viewed from the first side, extends across 10% to 40% of the surface area of the first side, and

wherein a width of the margin as measured from an edge of the hair warming tool to the nearest heating part extends from 3 to 15 cm over a periphery of the hair warming tool.

Accordingly, the margin is disposed around the heating part. The margin is free of heat generating material. A first side of the hair warming tool has a surface area of 100 to 1200 cm<sup>2</sup>. The total area of the heating part, as viewed from the first side, extends across 10% to 40% of the surface area of the first side. The margin, as measured from an edge of the hair warming tool to a nearest heating part, has a width of 3 to 15 cm along a periphery of the hair warming tool.

One benefit of the above-noted arrangement is that the hair warming tool is able to wrap one part of a user's hair tied in a knot while avoiding wrapping other parts of the hair or the entire head. In other words, heat can be applied to portions of the hair **selectively** even though the hair warming tool is securely fastened to the portion of the hair to be heated.<sup>1</sup> One non-limiting example of the above-noted arrangement can be found in Figs. 3(b)-3(d). Other non-limiting examples are shown in Figs. 4(a) and 4(b).

**Garrett does not describe the recited margin.**

In contrast, Garrett describes a corrugated layer (3) disposed **across practically an entire surface area** of the heating pad described in Figs. 1-5. Aside from the crimped area (8), which the outstanding Office Action cites for a margin, the corrugated layer (3) extends from one end of the heated pad to the other. As best shown in Figs. 1, 2, and 4, the crimped

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<sup>1</sup> See published application, numbered paragraphs [0007]-[0009].

area (8) is not provided such that a heating part extends across 10% to 40% of the heating pad as recited in amended independent Claim 1.

Nor does the crimped area (8) extend from 3 to 15 cm from an edge of the hair warming tool toward a nearest heating part. Rather, **the crimped area (8) described in Garrett is disposed in direct contact with the corrugated layer (3)**, which the outstanding Office Action cites for a heating part.

**There is no reason to modify Garrett to include the recited margin.**

Additionally, Applicants respectfully submit that a person of ordinary skill in the art reading Garrett would not have had a reason to extend the size of the crimped area (8) so that the heating part occupies 10% to 40% of the surface area of the pad or to separate the crimped area (8) from the corrugated layer (3) inasmuch as the crimped area (8) is provided by Garrett merely to assist in applying a bonding resin. Regarding the crimped area (8), Garrett states:

Following formation of the pad with the layers described, the edges of the pad, and some portions in the center of the pad, are crimped as indicated in the areas 8 and 9. **This crimping is to provide for easier application of a bonding resin which, after application, aids in retaining the dimensional stability of the pad.**<sup>2</sup>

Accordingly, the crimped area (8) facilitates application of a bonding resin used to hold the pad together. The crimped area (8) is not provided to allow the heated portions of the pad to be selectively applied to particular sections of hair, and Applicants respectfully submit that a person of ordinary skill in the art would have had no reason, in fact would have had a reason not to, provide a margin extending across enough of the surface area of the pad to limit the heating part to 10% to 40% of the pad. Nor would a person of ordinary skill in the art have had a reason to provide a margin extending from 3 to 15 cm from an edge of the pad to the

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<sup>2</sup> Garrett col. 5, lines 6-11 (emphasis added).

nearest heating part. Rather, Garrett minimizes the size of the crimped part in order to increase the effective heated area. This is so because Garrett uses the crimped area only out of a need to provide space to apply the bonding resin.

**Zeoli-Jones does not remedy Garrett's deficiencies.**

The outstanding Office Action acknowledges that Garrett fails to disclose an air gap provided between a first sheet and an outermost sheet in an area between a seal and a heat generating portion as recited in the previous version of independent Claim 1, and the outstanding Office Action relies on Zeoli-Jones for the above-noted feature.<sup>3</sup> However, Zeoli-Jones fails to remedy the deficiencies discussed above regarding Garrett. Rather, Zeoli-Jones describes a thermal transfer hair treatment cap used to cover a user's **entire head** (excluding the face). The thermal transfer hair treatment cap includes a plurality of pockets (24)-(44) as shown in Fig. 2. Zeoli-Jones allows its thermal transfer hair treatment cap to conform to the shape of a person's head as shown in Fig. 3 by providing a plurality of pockets including a microwaveable gel. The pockets (24)-(44) cover most of the surface area of the thermal transfer hair treatment cap. Zeoli-Jones is unconcerned with selectively heating only certain portions of a user's hair while leaving other portions unheated. In fact, Zeoli-Jones endeavors to replace the conventional means of heating a user's head which was done by wrapping heated, **damp towels** around the head as discussed in column 1, lines 20-25 of Zeoli-Jones.

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<sup>3</sup> Outstanding Office Action, page 3.

**Zeoli-Jones is directed to a cap to cover a user's entire head and does not recognize the amount of surface area of the margin to be a result-effective variable.**

Zeoli-Jones does not recognize a percentage of the surface area of the thermal hair treatment cap which is comprised of a margin as recited in amended independent Claim 1 to be a result-effective variable. Only result-effective variables can be optimized. MPEP § 2144.05(ii)(B) states:

A particular parameter **must first be recognized as a result-effective variable**, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

Thus, for a variable to be optimized, the variable must first be recognized to achieve a particular result. Zeoli-Jones does not recognize any value in providing a particular percentage of its thermal hair treatment cap as a margin that is free of heat generating material. Instead, Zeoli-Jones merely describes seams (20) disposed around a periphery of the thermal transfer hair treatment cap. Zeoli-Jones does not provide any indication that a person of ordinary skill in the art would have had a reason to extend the areas around the seams to encompass enough of the surface area of the hair treatment cap to limit a heating part to 10% to 40% of the surface area of one side. Rather, Zeoli-Jones describes that the seams (20) “act as hinge-like joints to allow pockets to articulate relative to each other and conform to the shape of a head and hair on which the cap (10) is positioned.<sup>4</sup> Thus, Zeoli-Jones uses the seams (20) in order to allow the pockets to articulate to conform to the shape of a head, and Zeoli-Jones is silent with respect to leaving a portion of the heated cap (10) free of heated material as is the margin recited in amended independent Claim 1.

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<sup>4</sup> Zeoli-Jones, col. 4, lines 12-14.

**Zeoli-Jones fails to disclose the recited margin.**

Moreover, Zeoli-Jones is silent with respect to providing a margin extending from 3 to 15 cm over a periphery of the hair warming tool. Instead, Zeoli-Jones merely uses the seams (20) as hinges, and intends to heat as much of the head as possible. Thus, Zeoli-Jones does not recognize any value in leaving a margin extending 3 to 15 cm along its periphery free of heat generating material as recited in amended independent Claim 1, and a person of ordinary skill in the art reading Zeoli-Jones and Garrett would have had no reason to provide such a margin.

Accordingly, Applicants respectfully submit that no proper combination of Garrett and Zeoli-Jones would include all of the features recited in amended independent Claim 1 or any of the claims depending therefrom.

Each of amended independent Claims 3, 11, and 14 recites substantially similar features to those discussed above regarding amended independent Claim 1 and patentably distinguishes over any proper combination of Garrett and Zeoli-Jones for at least the same reasons as amended independent Claim 1 does. Claims 12 and 13 each depend from amended independent Claim 11 and patentably distinguish over any reasonable combination of the cited references for at least the same reasons as amended independent Claim 11 does.

**Method Claim 3 recites leaving a portion of the hair unwrapped.**

Independent Claim 3 recites "wrapping tied hair with said hair warming tool, the tool wrapped around the hair with the outermost base sheet facing and contacting the hair while **leaving at least a part of the hair near roots unwrapped.**"

In contrast, as discussed above, the device described Zeoli-Jones is intended to be used to wrap the entire head, and clearly is used to cover the roots of the hair. In this regard, Applicants refer to Figs. 1 and 3 of Zeoli-Jones.

**Dependent method Claims 7, 12, and 26 recite additional patentable features.**

Dependent Claim 7 recites that the hair treatment preparation has an emulsified state that is broken at 55 to 60°C. Claims 12 and 26 recite similar features.

The outstanding Office Action asserts that this feature is merely a determination of an optimum workable range.<sup>5</sup>

However, as noted above, numerical values of properties are not obvious matters of optimization if the cited art does not recognize these properties to be result-effective variables. Neither Garrett nor Zeoli-Jones recognizes an temperature of an emulsification state of an hair treatment compound to be significant. Indeed, neither of Garret and Zeoli-Jones mentions emulsification.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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<sup>5</sup> Outstanding Office Action, page 4.